



Specification of Patent Application Entitled "Toenail Fungal Eradicator"

Application Number 10/657,571

01. The invention is a very simple device consisting of a light emitting diode, a plastic housing, a round battery, (such as a hearing aid or computer motherboard battery) , and the necessary wiring to complete the electrical circuit between the two, thus powering the diode which then emits light.

(See drawing figure 1).

Note: (figure 1 shows the device without the battery inserted.

Inserting the battery and removing the battery powers the device on and off.) Also, this device can be made in various sizes to better fit the infected nail.

02. The light from the diode is directed toward the infected nail by an opening in the plastic housing. The device is attached to the infected toenail or fingernail with an elastic strap threaded though a loop built into the plastic housing. (See figure 2)

03. The purpose of this invention is the safe and effective

treatment of nail bed fungal infections using light. This is a non-invasive alternative to conventional methods of treatment.

Conventional methods of treatment consist of topical creams, (which do not reach the infection and are thus ineffective), and systemic medications (which do reach the infection, but have systemic toxic properties, and are expensive to use).

The method I propose is totally non-invasive and totally safe, and very inexpensive.

To the best of my knowledge, I am the first person to think of using a “wearable” battery operated device which uses light to treat fungal infections of toenails and or fingernails.

I believe that all spectrums or colors of light may be effective in the treatment of fungal infections, but the use of a ultra-violet light emitting diode may be required for severe infections. It is well documented that fungi do not thrive in direct light and this method of treatment will ensure that they are exposed to direct light for several hours at a time or continuously, as tolerated by the wearer of the device. This device can be worn while sleeping, (as would

probably be the case for toenail infections as it would be difficult to wear inside your shoes) or continuously, as would probably be the case in fingernail infections. I believe that this method is superior to conventional methods of treatment in terms of safety and cost.